

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



PCT

(10) International Publication Number
WO 2004/091520 A2

(43) International Publication Date
28 October 2004 (28.10.2004)

(51) International Patent Classification⁷: **A61K**

[US/US]; 1111 Franklin Street, Oakland, CA 94607-5200 (US).

(21) International Application Number:
PCT/US2004/011333

(72) Inventors; and
(75) Inventors/Applicants (for US only): **WITZTUM, Joseph, L.** [—/US]; 6912 Ofria Court, San Diego, CA 92120 (US). **CHANG, Mi-Kyung** [—/US]; 10860 Caminito Arcada, San Diego, CA 92131 (US). **SILVERMAN, Gregg, J.** [—/US]; 571 Hidden Ridge Court, Encinitas, CA 92024 (US). **SHAW, Peter, X.** [—/US]; 10860 Caminito Arcada, San Diego, CA 92131 (US). **BINDER, Christoph** [—/US]; 390 Stratford Court, Apt. 2, Del Mar, CA 92014 (US).

(22) International Filing Date: 12 April 2004 (12.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/462,654 11 April 2003 (11.04.2003) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 60/462,654 (CIP)
Filed on 11 April 2003 (11.04.2003)

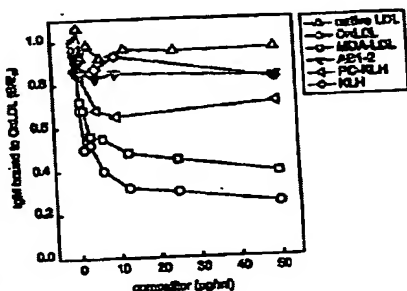
(74) Agent: **REED, Michael**; Fish & Richardson P.C., 12390 El Camino Real, San Diego, CA 92130 (US).

(71) Applicant (for all designated States except US): **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

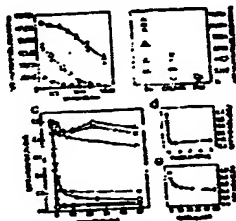
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

[Continued on next page]

(54) Title: **METHODS AND COMPOSITIONS FOR TREATING ATHEROSCLEROSIS**



(57) Abstract: During the progression of atherosclerosis, autoantibodies are induced to epitopes of oxidized low-density lipoprotein (OxLDL), and active immunization of hypercholesterolemic mice with OxLDL ameliorates atherogenesis. The present studies have identified anti-OxLDL autoantibodies that share complete genetic and structural identity with antibodies produced by anti-phosphorylcholine B-cell clone, T15.



WO 2004/091520 A2